

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER PROTECTION BUREAU  
Metcalf Building, Helena, Montana 59620  
(406) 444-3080**

**ENVIRONMENTAL ASSESSMENT (EA)**

**Division/Bureau:** Permitting & Compliance Division, MPDES Permits;

**Project or Application:** Town of Joliet, Wastewater Treatment Facility, Permit Renewal MT0020249

**Description of Project:** This is for the reissuance of a wastewater discharge permit issued to the Town of Joliet under the Montana Pollutant Discharge Elimination System (MPDES). Treated domestic wastewater is discharged to Rock Creek, a B-1 water-use classification stream as in the Montana Surface Quality Standards. The permittee operates an aerated lagoon to treat domestic wastewater. Treated effluent is discharged continuously and is not disinfected prior to discharge.

**Benefits and Purpose of Proposal:**

Benefits from issuing this permit would ensure adequate treatment of domestic sewage before discharging to surface water. Re-issuance of this permit will allow for additional monitoring during the permit term.

**Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider:**

None

**Listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by this or another government agency:**

None

**Affected Environment and Effects from the Proposed Project:**

<b><u>Key to Rank</u></b>	
NA	<i>Not applicable</i>
N	<i>No effects</i>
B	<i>Potentially beneficial effects</i>
A	<i>Potentially adverse effects</i>
M	<i>Corrective action required</i>
P	<i>Additional permits will be required</i>

Rank	Consideration	Remarks
<b>PHYSICAL AND BIOLOGICAL ENVIRONMENT</b>		
N	1. SOIL SUITABILITY, TOPOGRAPHIC AND/OR GEOLOGIC CONSTRAINTS (soil moisture, unstable soils or geologic conditions, steep slopes, erosion potential, subsidence potential, seismic activity)	The facility is located within the 100-year flood plain of Rock Creek (FEMA, 2007). Facility has been in this location since 1986. Underlying geology is Quaternary alluvial terrace (Montana Bureau of Mines and Geology, 2007), which is described as being composed of gravel, sand, silt, and clay underlying terraces about 20-200 feet above present elevation of modern streams and river. The soil type underlying the facility footprint is the Maurice-Bearmouth complex, a clay-dominated soil type. It is rated a being very limited for sewage disposal sites (USDA, 2007). The USGS earthquake probability maps indicate between 0.00-0.10 probability of a 5 or greater moment magnitude (body-wave) occurring within the user entered time spans of 10 and 100 years.

N	2.	HAZARDOUS FACILITIES (power lines, hazardous waste sites, distances from explosive and flammable hazards including chemical/petroleum storage tanks, underground fuel storage tanks and related facilities such as natural gas storage facilities and propane tanks)	Facility is a wastewater treatment facility that serves a small community with no significant industrial dischargers. No hazardous materials will be used or stored onsite.
N	3.	AIR QUALITY (effects to or from project, dust, odors, emissions)	Facility uses aeration to decrease odors and increase microbial activity. The facility is located east of town and downwind. Odors should be minimal.
N	4.	GROUNDWATER RESOURCES & AQUIFERS (quality/nondegradation, quantity/reliability, distribution, uses/rights, number of aquifers, mixing zones)	The GWIC database shows several wells completed near the WWTF. The wells are shallow (<120' deep) and static water levels range from 16'-50' below ground surface. Not many well logs identify the geologic or aquifer unit the wells are completed in. A public water supply well log IDs the aquifer as the Eagle Sandstone, located 9' below ground surface. Many well logs ID consolidated material (i.e. rock) around 9' below ground surface; the alluvial material does not appear thick near the WWTF.
N	5.	SURFACE WATER RESOURCES (quality/nondegradation, quantity/reliability, distribution, uses/rights, storm water controls, source of community supply, community treatment, mixing zones)	Discharges are regulated by limits established in the permit. All pollutants discharged meet National Secondary Standards, Non-Degradation or Water Quality Based Effluent Limitations to protect the receiving water quality. Additional ambient monitoring of the receiving water is required of the permittee.
N	6.	VEGETATION AND WILDLIFE SPECIES AND HABITATS, INCLUDING FISHERIES AND AQUATIC RESOURCES (threatened, endangered, sensitive species, prime habitat, population stability, potential for human wildlife conflicts, effectiveness of post-disturbance plans)	A survey of the Natural Heritage Program identified two vertebrate animals and one vascular plant as species of concern within a 1-mi query radius of the WWTF. The Barn Owl has a state status of S1, where the "1" denotes "critically imperiled". The milksnake has a state status of S2, and is listed as "sensitive" by the USFS & SU Bureau of Land Management. The vascular plant, Drummond's Hermicarpa, was identified for the area and assigned State rank of SH, which is a state status (S) and "possibly extinct" (H), but Global rank of G4G5, which is uncommon to common, not rare to widespread and abundant. The plant was observed once in August 1941.
N	7.	UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES (biologic, topographic, wetlands (within one mile), floodplains (within one mile), scenic rivers, natural resource areas, etc.)	No additional impacts to the environment will occur because the facility has long been established at the site.
N	8.	LAND USE (waste disposal, agricultural lands [grazing, cropland, forest lands, prime farmland], recreational lands [waterways, parks, playgrounds, open space, federal lands], access, commercial and industrial facilities [production & activity, growth or decline], growth, land-use change, development activity)	No changes in land use at the permitted facility will occur during the permit cycle.
N	9.	HISTORICAL, CULTURAL, & ARCHEOLOGICAL (sites, facilities, uniqueness, diversity)	The current facility has been in this location for several decades.
N	10.	AESTHETICS (visual quality, nuisances, odors, noise)	The wastewater facility has been in the current location for decades. Urban development is low.

N	11. DEMANDS ON OR CHANGES IN ENVIRONMENTAL RESOURCES INCLUDING LAND, WATER, AIR, OR ENERGY USE (need for new or upgraded energy sources, potential for recycling, etc.) {See (4), (5), and (8).}	No impacts are expected.
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Rank	Consideration	Remarks
<b>IMPACTS ON THE HUMAN POPULATION</b>		
NA	12. CHANGES IN DEMOGRAPHIC CHARACTERISTICS (population quantity, distribution and density, rate of change)	No impacts are expected.
N	13. GENERAL HOUSING CONDITIONS (quality, quantity and affordability)	No impacts are expected.
NA	14. POTENTIAL FOR DISPLACEMENT OR RELOCATION OF BUSINESS OR RESIDENTS	None
N	15. PUBLIC HEALTH AND SAFETY (medical services and facilities, police, fire protection and hazards [see (2)], emergency medical services [see (8), LAND USE for waste disposal])	Public health and safety will be improved by treating the community's domestic sewage prior to discharge.
N	16. LOCAL EMPLOYMENT AND INCOME PATTERNS (quantity and distribution of employment, economic impact)	No changes to employment or income patterns are expected.
NA	17. LOCAL AND STATE TAX BASE AND REVENUES	If, due to permit conditions, the facility fails to provide the level of treatment to prevent pollutants from being discharged to state waters, the facility may have to raise sewer rates to cover development and construction costs.
NA	18. EFFECTS ON SOCIAL STRUCTURES AND MORES (social conventions/standards of social conduct), DEMANDS ON SOCIAL SERVICES (law enforcement, educational facilities [libraries, schools, colleges, universities], welfare, etc.)	No impacts are expected at this time.
NA	19. TRANSPORTATION NETWORK (condition and use of roads, traffic flow conflicts, rail, airport compatibility, etc.)	No impacts are expected at this time.
N	20. CONSISTENCY WITH LOCAL ORDINANCES, RESOLUTIONS, OR PLANS (conformance with local comprehensive plans, zoning or capital improvement plans)	No impacts are expected at this time.

N	<p>21. REGULATORY RESTRICTIONS ON PRIVATE PROPERTY RIGHTS (<i>Are we regulating pursuant to a police power? Does the Agency action restrict the use of the property beyond the minimum necessary to achieve compliance with the Act? What are the costs of such additional restrictions resulting from proposed permit conditions? Are there other, less restrictive ways of achieving the same goal? See your assigned legal counsel for assistance preparing this section. [See the Private Property Assessment Act checklist accompanying this permit for details.]</i></p>	<p>The limits set within the permit do not impose unnecessary demands on the Permittee at this time. Issuance of the permit will not affect private property.</p>
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Other groups or governmental agencies contacted or which may have overlapping jurisdiction:

None

Public Involvement:

Thirty-day public comment period, beginning in June 2007.

Individuals or groups contributing to this EA:

State of Montana, DEQ Permitting & Compliance Division

Summary of Issues:

See Statement of Basis

Summary of Potential Effects:

See Statement of Basis

Cumulative Effects:

None

Recommendation:

Grant the Surface Water Discharge permit

Recommendation for Further Environmental Analysis:

☐ Prepare an EIS

☐ Prepare a more detailed EA

☒ No further analysis

EA prepared by: Rebecca Ridenour

Date: May 28, 2007

**Bureau Check-off**

AWMB \_\_\_\_\_

CSB \_\_\_\_\_

EMB \_\_\_\_\_

IEMB \_\_\_\_\_

WPB \_\_\_\_\_

Other \_\_\_\_\_

**Approved by:**

Bonnie Lovelace, Chief  
Water Protection Bureau

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)